

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A cleaning solution for removing a byproduct derived from a decomposed substance of a process gas containing C and F, and deposited on a component in a process chamber of a semiconductor processing apparatus for subjecting a target substrate to a semiconductor process with the process gas, the cleaning solution comprising N-methyl-2-pyrrolidone, ethylene glycol monobutyl ether, a surfactant, and water; and
wherein the surfactant contains fluorine and a total content of the N-methyl-2-pyrrolidone and ethylene glycol monobutyl ether is 80 to 90 wt%, and a ratio of a content of the N-methyl-2-pyrrolidone to the total content of the N-methyl-2-pyrrolidone and ethylene glycol monobutyl ether is 0.75 to 0.95.

Claim 2 (Cancelled).

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3. (Previously Presented) The cleaning solution according to claim 1, wherein the water concentration is 5 to 20 wt%.

4. (Previously Presented) The cleaning solution according to claim 1, wherein the surfactant concentration is 0.1 to 1.0 wt%.

5. (Cancelled)

6. (Cancelled)

7. (Previously Presented) A cleaning method for removing a byproduct derived from a decomposed substance of a process gas containing C and F, and deposited on a component

in a process chamber of a semiconductor processing apparatus for subjecting a target substrate

to a semiconductor process with the process gas,

the method comprising:

removing the component from the process chamber; and

dipping the component in a bath of a cleaning solution comprising N-methyl-2-pyrrolidone, ethylene glycol monobutyl ether, a surfactant, and water.

8. (Previously Presented) The cleaning method according to claim 7, wherein the component is dipped in the bath of the cleaning solution while the component is stored in a cage with 500 to 100 meshes.

C | 9. (Previously Presented) The cleaning method according to claim 7, wherein the component is dipped in the bath of the cleaning solution while a temperature of the cleaning solution is set at 50 to 80°C.

10. (Previously Presented) The cleaning method according to claim 7, wherein the semiconductor process comprises etching a layer consisting essentially of a silicon oxide on the target substrate by using the process gas.

11. (Previously Presented) The cleaning method according to claim 7, wherein the cleaning solution further contains an alkali metal concentration of less than 10 ppb.

12. (Previously Presented) The cleaning method according to claim 7, wherein, in the cleaning solution, a total content of the N-methyl-2-pyrrolidone and ethylene glycol monobutyl ether is 80 to 90 wt%, and a ratio of a content of the N-methyl-2-pyrrolidone to

the total content of the N-methyl-2-pyrrolidone and ethylene glycol monobutyl ether is 0.75 to 0.95.

Claims 13-18 (Cancelled).

19. (Previously Presented) The cleaning solution according to claim 1, wherein the composition comprises 10 ppb or less of an alkali metal.

20. (Previously Presented) The cleaning method according to claim 7, wherein the water concentration is 5 to 20 wt%.

21. (Previously Presented) The cleaning method according to claim 7, wherein the surfactant concentration is 0.1 to 1.0 wt%.

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22. (New) A cleaning solution for removing a byproduct derived from a decomposed substance of a process gas containing C and F, and deposited on a component in a process chamber of a semiconductor processing apparatus for subjecting a target substrate to a semiconductor process with the process gas, the cleaning solution comprising N-methyl-2-pyrrolidone, ethylene glycol monobutyl ether, a surfactant, and water; and

(NO Surf. cont. fluorine) wherein a total content of the N-methyl-2-pyrrolidone and ethylene glycol monobutyl ether is 80 to 90 wt%, and a ratio of a content of the N-methyl-2-pyrrolidone to the total content of the N-methyl-2-pyrrolidone and ethylene glycol monobutyl ether is 0.75 to 0.95.

23. (New) The cleaning solution according to Claim 21, wherein the surfactant contains fluorine.